

THE TRUE COSTS OF COAL: DON'T FORGET COAL ASH

TAKE ACTION

Contact your Senator and tell them to oppose any legislation that prevents the EPA from protecting health and property impacts from coal ash.

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WHAT IS COAL ASH?

Coal combustion waste, or coal ash, is a collective term used for all solid remnants left over after coal is burned. As a byproduct of burning coal, coal ash has higher toxic concentrations of heavy metals such as arsenic, lead, and mercury than coal itself. Coal ash is also called coal combustion residue or CCR.

Coal ash is extremely fine material, and in the past, most escaped out of exhaust towers into the air. However, due to severe health problems associated with airborne coal ash, national air quality standards now require fly ash to be collected and stored instead of being released into the air. An important stride made to limit air pollution has now unfortunately created a new and growing problem with coal-fired power plants around the country generating over 130 million tons of coal combustion waste each year that must be safely and properly stored. These pollutants that once contributed to air pollution are now becoming solid wastes and can leach into groundwater.

WHERE DOES THE COAL ASH GO NOW?

Forty-three percent of coal ash is recycled into products like concrete and wall board, and the remaining 70 million tons must be stored or disposed of. Many plants dispose of the coal ash using a 'dry' method, whereby the ash is stored in silos and trucked to landfills. Some plants, however, decide to use the cheaper 'wet' method which involves mixing water with the ash and dumping it into a collection pond or impoundment area.

In the past, demands for regulation have mostly been centered on the disposal of coal ash in surface impoundments, since wet disposal of toxic ash in lagoons are typically unlined. According to an Environmental Integrity Project report released January 2009, 74 percent of wet impoundments in the U.S. are not lined, virtually guaranteeing some type of groundwater contamination due

COAL ASH CONTAMINATES DRINKING WATER

A 2007 Environmental Protection Agency report includes a total of 67 proven or potential cases of water contamination documented in 23 states from landfills and surface impoundments containing coal combustion waste.

One of the cases of water contamination cited in the report is from a coal plant in Colstrip, Montana. For over two decades the toxins from two coal ash impoundments leached into the ground, leading to extensive contamination of the entire aquifer. In 2008, the consortium that controls the plant paid \$25 million to settle a lawsuit filed by 57 residents. Their well water was so contaminated they had to abandon their wells and get connected to the city water line. The company also dug recovery wells around the plant in an effort to pump the contaminated water out of the aquifer back into the pond. Unfortunately this did not solve the problem because the ponds continue to leak toxic chemicals.

ALL SORTS OF REALLY NASTY STUFF.....

Aluminum	Chromium	Nickel	Vanadium	Antimony	Cobalt	Zinc	Arsenic	Iron
Potassium	Barium	Lead	Selenium	Beryllium	Magnesium		Silicon	
Boron	Manganese	Sodium	Cadmium	Mercury	Sulfur		Calcium	
Molybdenum	Thallium	Nitrate/nitrite(MCL)						

Coal ash contains all of the heavy metals and chemicals listed above. Many of these pose serious threats to human health when leached into groundwater. Some of those affects include decreased production of red and white blood cells, anemia, lung and heart problems, mental retardation, cancer and even death.

to these toxic chemicals. This is not to say that disposal in landfills do not pose any risks; a 2007 EPA report of proven damage cases from coal ash disposal documents that landfills in New York, Michigan, Wisconsin and Indiana have led to contaminated groundwater. Many coal ash disposal sites are found in rural areas near power plants which generate the ash, to avoid costly transportation, but also concentrating the pollution.

HOW IS COAL ASH REGULATED?

Until recently, coal ash was regulated exclusively on a state-by-state basis, leading to a patchwork of little to no regulations. In fact, 20 % of states exempt coal ash entirely from any waste regulations. EPA's role in regulating coal ash has been debated for nearly 30 years, and although some have acknowledged that coal ash is dangerous and should be strictly regulated, EPA has continually exempted it from hazardous waste controls.

In the WORC region, Colorado, Idaho, Montana, South Dakota and Wyoming designate coal ash as either a solid waste or industrial waste. Colorado considers the application of the solid waste disposal rules on a case-by-case basis. North Dakota and Oregon have no specified designation for coal ash, and although North Dakota has seven coal power plants and ranks 14th in the amount of stored coal waste, there are no standard state disposal regulations. Montana explicitly exempts coal ash from regulation.

CURRENT STATUS OF FEDERAL REGULATION

In December 2015, after years of citizen advocacy and a lawsuit, the Environmental Protection Agency adopted a new coal ash rule. It means that no coal ash landfill can be built without a composite liner, leachate collection system, groundwater monitoring, separation from groundwater, and other essential safeguards. While the rule should have been much stronger, it marks a significant advance. However, there will be no federal enforcement of the CCR rule. The rule relies solely on citizens and states to enforce the regulations via citizen suit in federal court.

Sen. John Hoeven (R-ND) has introduced S. 2446, with Sen. Manchin (D-WV) to kill EPA's new coal ash rule and permanently tie EPA's hands on coal ash. S. 2446 would gut the EPA rule and eliminate, weaken or delay critical health protections.

SOURCES

Maryland. Department of Health. Fact Sheet - Coal Fly Ash and It's Health Risks. Nov 2007. Web.

Tennessee. Department of Health. Coal Fly Ash Release Fact Sheet. 13 Feb 2009. Web.

Schaeffer, Eric and Lisa Evans. "Coming Clean: What the EPA Knows About the Dangers of Coal Ash." May 2009. The Environmental Integrity Project and Earthjustice. Web.

WHAT IS IN THE NEW RULE?

There are four important steps that owners and operators must do under EPA's new fly ash rule:

- 1. MAINTAIN A PUBLIC INTERNET SITE:** All owners and operators must establish a publicly accessible Internet site titled "CCR Rule Compliance Data and Information." (*Google your local utility and make sure the website, "CCR Rule Compliance Data and Information" is up and running.*)
- 2. CONTROL FUGITIVE DUST:** Effective December 2015, all owners and operators must "minimize coal ash from becoming airborne."
- 3. DEMONSTRATE SAFE "BENEFICIAL USE" FOR LARGE FILL PROJECTS:** All users of CCR for fill projects larger than 12,400 tons must demonstrate that the use will be safe.
- 4. COMPLY WITH NEW DESIGN STANDARDS (New ponds and landfills):** Any unit that is not yet constructed must comply with all new design standards and location restrictions PRIOR to construction.